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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,477

04/21/2006

Jens Uwe Brandt

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EXAMINER

FULLER, ROBERT EDWARD

ART UNIT

PAPER NUMBER

3676

NOTIFICATION DATE

DELIVERY MODE

08/28/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
pto@gbpatent.com

Office Action Summary	Application No. 10/595,477	Applicant(s) BRANDT ET AL.	
	Examiner ROBERT E. FULLER	Art Unit 3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's submission, filed May 11, 2009, has been carefully considered. Examiner has withdrawn the prior art rejections, as well as the rejections under 35 U.S.C. 112 set forth in the previous Office Action, but has now issued new rejections. Examiner has also added a claim objection and new rejections under 35 U.S.C. 112, 1st Paragraph. This Office Action has not been made final.

Claim Objections

2. Claim 23 is objected to because of the following informalities: Claim 23 uses the phrase "area of discharge of the suction line into the well." It appears that this should be corrected in light of the changes to claim 22. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 31 and 32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The original specification and claims did not provide basis for the limitation "with an absence of carrier fluid." While the original disclosure does not state that the invention uses a carrier fluid, it does not explicitly state that it does not.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 16, 17, 19, 21, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Skinner et al. (US 4,066,123).

With regard to claim 16, Skinner teaches a method for delivering a multi-phase mixture from a well using a displacement pump (18) through which the multi-phase mixture is pumped, comprising, on a pressure side, splitting off a partial liquid flow (via line 22) from a main delivery flow (via line 25) and guiding the split partial liquid flow to a high-pressure side of at least one ejector pump (10) arranged on a suction side of the displacement pump as an auxiliary delivery device.

With regard to claim 17, the ejector (10) is in the well.

With regard to claim 19, Skinner discloses feeding a partial volume flow of the separated liquid phase in a portioned manner to a suction side of the displacement pump via a short-circuited line (23).

With regard to claim 21, Skinner discloses a booster pump (12).

With regard to claim 31, Skinner does not use a carrier fluid.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Skinner et al.

9. Skinner does not disclose passing the partial liquid flow through an additional separator. However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have added an additional separator to the system of Skinner, as this would have ensured that most or all of the gas was eliminated from the carrier liquid, and furthermore, because it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

10. Claims 18, 22-30, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skinner et al. in view of Rohlfing (US 5,624,249).

With regard to claims 22 and 18, Skinner discloses a pump installation comprising a displacement pump (18) for delivering multi-phase mixtures with a pump housing in which a pressure chamber is provided, a suction line (24) configured to open out into a well, and a feed line (22) connecting the pressure chamber of the

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displacement pump with a high-pressure side of at least one ejector pump (10) arranged on a suction side in a delivery direction of the displacement pump and which guides the separated liquid phase to the ejector pump.

Skinner fails to disclose a separation device being provided within the displacement pump housing.

Rohlfing discloses a pump apparatus having a pressure chamber (11) in which a separation device is provided within the pump housing (3).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Skinner so that the pump and separator were provided in a single housing, as shown by Rohlfing, since this would have simplified Skinner's system, and further, since applicant admits that "displacement pumps and multi-phase pumps, including their pressure chambers and housings, and how they are operable to separate are well known in the art" (see page 8 of the Remarks filed November 28, 2008).

With regard to claim 23, Skinner's ejector pump (10) is arranged in an area of discharge of the suction line into the well in the delivery direction of the displacement pump (18).

With regard to claim 24, Skinner discloses a short-circuited line (23) leading from a pressure-chamber side to the suction side of the displacement pump for portioned feeding of the separated liquid phase.

With regard to claims 25 and 26, Skinner in view of Rohlfing does not disclose an additional separator. However, it would have been considered obvious to one of

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ordinary skill in the art, at the time the invention was made, to have added an additional separator to the system of Skinner, as this would have ensured that most or all of the gas was eliminated from the carrier liquid, and furthermore, because it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Also, with regard to claim 26, if an additional separator were added to the system of Skinner, one of ordinary skill would have sent the extracted gas to the same pipes which exit the separator (9), and these pipes are located on a pressure side of the pump.

With regard to claim 27, Skinner discloses a booster pump (12).

With regard to claim 28, Rohlfing's pump is a screw pump.

With regard to claim 29, Skinner's ejector pump (10) is in the well.

With regard to claim 30, Skinner's ejector pump (10) is at the end of a suction line (24).

With regard to claim 32, Skinner does not use a carrier fluid.

Response to Arguments

11. Applicant's arguments with respect to claims 16 and 22 have been considered but are moot in view of the new ground(s) of rejection.

Examiner would like to respond to applicant's remarks regarding the combination of Stark and Rohlfing inasmuch as they could be applied to the combination of Skinner and Rohlfing. Applicant argues that Rohlfing cannot be combined with Stark because Rohlfing's combination pump/separator only has one outlet which discharges a mixture of gas and liquid, while Stark's separator has two outlets which discharge gas and liquid

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separately. Examiner respectfully traverses this argument. Rohlfing is brought in merely to teach the combination of a pump and separator in a single housing. Examiner is not suggesting replacing everything in Stark with what is disclosed by Rohlfing, but rather, to simply apply Rohlfing's disclosure of a combined pump and separator into the system taught by Stark. Examiner submits that one of ordinary skill in the art would be able to adapt Rohlfing's pump to discharge gas and liquid separately as in Stark.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT E. FULLER whose telephone number is (571)272-0419. The examiner can normally be reached on Monday thru Friday from 8:00 AM - 5:30 PM..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer H. Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shane Bomar/
Primary Examiner, Art Unit 3676

08/24/2009
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